

Cf. Warner Jenkinson Co. v. Hilton-Davis Chem. Co., 41 U.S.P.Q.2d 1865 (U.S. 1997); and *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 56 U.S.P.Q.2d 1865 (Fed. Cir. 2000).

Rejection Under 35 U.S.C. § 112, second paragraph

In paragraphs 4 and 5 (page 3) of Paper No. 9, the Examiner rejected claims 9 and 13 under 35 U.S.C. § 112, second paragraph as being "indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention." Paper No. 9, paragraph 5 at page 3. Specifically, the Examiner requested clarification of the phrase "spacing a" in claim 9 and the measuring units of density in claim 13. Applicants respectfully traverse this rejection.

Claim 9 has been amended to clarify the phrase "spacing a." In particular, claim 9 has been amended to read "spacing of a," and support for this amendment may be found on page 5, line 14 of the specification.

Claim 13 recites a maximal optical density of 0.3. The Examiner has requested a correction of the measuring units. Optical density is expressed by $\log(I_i/I_t)$, where I_i is the intensity of the incident light, and I_t is the intensity of the transmitted light (*see, e.g.*, Handbook of Chemistry and Physics, page E-170; a copy has been provided), and as a logarithm value, does not have a measuring unit.

It is thus submitted that the claims meet the requirements of 35 USC § 112, second paragraph, and reconsideration and withdrawal of the present rejection is respectfully requested.

Rejection Under 35 U.S.C. § 102: Bennett et al.

In paragraphs 6 and 7 (pages 3-5) of Paper No. 9, the Examiner rejected claims 1, 2, 5-8, and 12 under 35 U.S.C. § 102(b) as being anticipated by Bennett et al. Applicants respectfully traverse this rejection.

In order to support anticipation under 35 U.S.C. § 102, each and every element of a claimed invention must be disclosed within a single prior art reference. *See In re Bond*, 15 USPQ2d 1896 (Fed. Cir. 1991).

As claimed, the invention relates to an electrochromic display element containing an electrochromic medium between two electrode sheets where at least one of the electrode sheets is

transparent and has a pattern of strips or a grid made of a material having metallic conductivity. The pattern of strips or grid serves to even out local resistance fluctuations and to avoid voltage decreases in the transparent layer (see specification at page 3, lines 17-18). Surprisingly, this produces a rapid, uniform coloration of the switching area (see specification at page 3, lines 20-21).

Bennett et al. discloses a display device containing a transparent outer layer and an electrode with a reflective surface, wherein the electrode may include holes or slits for allowing ions to pass through the electrode, permitting ions to contact the electrochromic layer and ion source (see column 5, lines 12-19 and lines 60-64). The electrode itself is conductive, not the surface. Thus, Bennett et al. does not teach or disclose a transparent electrode with a pattern of strips or a grid made of a material having metallic conductivity, that is, where the surface is conductive.

Since the display device described by Bennett et al. does not disclose a transparent electrode with a pattern of strips or a grid made of a material having metallic conductivity as claimed in the invention, Bennett et al. does not teach each and every limitation of the claimed invention. Therefore, the Examiner has failed to establish a proper rejection under 35 U.S.C. § 102 (b). Accordingly, Applicants respectfully request reconsideration and withdrawal of the of the present rejection.

Rejection Under 35 U.S.C. § 103(a): Bennett et al. and Byker et al.

In paragraphs 8 and 9 (pages 5-6) of Paper No. 9, the Examiner rejected claims 10 and 11 under U.S.C. § 103(a) as unpatentable over Bennett et al., in view of Byker et al. Applicants respectfully traverse.

To properly maintain a rejection under 35 U.S.C. § 103, three conditions must be met. First, the prior art must have suggested to those of ordinary skill in the art that they should make the claimed composition or device or carry out the claimed process. Second, the prior art must also have revealed that in so making or carrying out, those of ordinary skill in the art would have a reasonable expectation of success. Both the suggestion and the reasonable expectation of success must be adequately founded in the prior art and not in the Applicant's disclosure.

Finally, the prior art reference must teach or suggest all the claim limitations. *See In re Vaeck*, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

The invention relates to an electrochromic display element containing an electrochromic medium between two electrode sheets where at least one of the electrode sheets is transparent and has a pattern of strips or a grid made of a material having metallic conductivity.

The Examiner states that "Bennett does not teach the metal grid on the electrode has been deposited on the transparent which is electrically conductive material," and that the Byker reference discloses "...electrochromic display is characterized of metal grid..." Paper No. 9 at page 5. Applicants respectfully traverse.

The electrochromic display disclosed by Byker et al. does not teach or suggest an electrochromic device containing a pattern of strips or grid made of a material having metallic conductivity. Furthermore, Bennett et al. does not teach or disclose a transparent electrode with a pattern of strips or a grid made of a material having metallic conductivity. Therefore, the teachings of Bennett et al., in combination with Byker et al., do not teach or suggest the present invention and the requisite reasonable expectation of success is absent.

That is, Bennett et al., either singly or in combination with Byker et al., fails to teach or suggest an electrochromic display element containing an electrochromic medium between two electrode sheets where at least one of the electrode sheets is transparent and has a pattern of strips or a grid made of a material having metallic conductivity. Furthermore, the references do not teach or suggest that a pattern of strips or a grid serves to even out local resistance fluctuations or avoids voltage decreases in the transparent layer, and thus, produce a rapid, uniform coloration of the switching area. Therefore, the claimed invention is novel and nonobvious in view of the prior art references. Accordingly, Applicants respectfully request reconsideration and withdrawal of the present rejection.

Claim Objections

In paragraph 3 (page 3) of Paper No. 9, the Examiner objected to claims 3 and 4 under 37 C.F.R. 1.75(c) as being in improper form. Claim 3 has been amended and is now in a correct form.

It is thus submitted that the claims meet the requirements of 37 C.F.R. 1.75(c), and reconsideration and withdrawal of the present objection is respectfully requested.

Drawings and Specification

In paragraphs 1 and 2 (page 2) of Paper No. 9, the Examiner has objected to the drawings and specification. Applicants will submit formal drawings and an amended specification when the application is allowed.


CONCLUSION

For the foregoing reasons, Applicants submit that the claim is in condition for allowance and Applicants respectfully request reexamination of the present application, reconsideration and withdrawal of the present rejections and entry of the amendments. Should there be any further matter requiring consideration, Examiner Hindi is invited to contact the undersigned counsel.

If there are any further fees due in connection with the filing of the present reply, please charge the fees to undersigned's Deposit Account No. 13-3372. If a fee is required for an extension of time not accounted for, such an extension is requested and the fee should also be charged to undersigned's deposit account.

Respectfully submitted,

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Susan M. Pellegrino
Reg. No. 48,972

Bayer Corporation
400 Morgan Lane
West Haven, CT 06516-4175
Telephone: (203) 812-6450
Facsimile: (203) 812-6459

Claim Amendments, March 19, 2002

3. (Amended) Electrochromic display element according to Claim 1 [and] or 2 , characterized in that the eletrochromic medium contains at least one pair of redox substances of which one is reducible and the other is oxidizable, where both are colourless or only slightly coloured and one substance is reduced and the other is oxidized on application of a voltage to the display element, with at least one becoming coloured, and after switching off the voltage the two original redox substances are formed again and the display element decolorizes.

9. (Twice amended) Electrochromic display element according to Claim 7, characterized in that the arrangement of the aperiodic grid is such that the mean of the distance between two neighbouring points of the intersection of the grid, taken over all points of intersection of the grid, corresponds to the dot spacing of a of a periodic dot grid having the same size and the same number of grid points and in that the autocorrelation function of the grid decreases rapidly in all directions for values which are greater than a.